|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Retroelements | SINEs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Penelope | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 0 |
| LINEs | CRE/SLACS | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 2 |
| TOTAL | 36 | 107 | 123 | 117 | 92 | 32 | 189 | 155 | 37 | 30 | 33 |
| LTR elements | BEL/Pao | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ty1/Copia | 55 | 88 | 64 | 71 | 70 | 56 | 187 | 107 | 60 | 62 | 77 |
| Gypsy/DIRS1 | 123 | 103 | 139 | 126 | 138 | 103 | 161 | 146 | 172 | 94 | 92 |
| TOTAL | 181 | 193 | 207 | 200 | 212 | 162 | 350 | 255 | 233 | 157 | 169 |
| TOTAL | 217 | 300 | 330 | 317 | 304 | 194 | 539 | 410 | 270 | 187 | 202 |
| DNA Transposons | hobo-Activator | 7 | 60 | 19 | 13 | 15 | 6 | 71 | 45 | 7 | 1 | 5 |
| Tc1-IS630-Pogo | 24 | 42 | 56 | 50 | 44 | 30 | 92 | 66 | 24 | 98 | 27 |
| En-Spm | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MuDR-IS905 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PiggyBac | 3 | 10 | 3 | 1 | 1 | 4 | 14 | 20 | 36 | 2 | 30 |
| Tourist/Harbinger | 6 | 4 | 5 | 6 | 6 | 4 | 4 | 1 | 5 | 2 | 2 |
| Other (Mirage, P-element, Transib) | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| TOTAL | 62 | 179 | 132 | 119 | 113 | 66 | 293 | 228 | 107 | 181 | 91 |
| Rolling-circles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unclassified | 4 | 19 | 8 | 10 | 9 | 6 | 32 | 16 | 8 | 3 | 5 |
| Small RNA | 10 | 13 | 13 | 12 | 11 | 20 | 9 | 14 | 5 | 14 | 7 |
| Satellites | 33 | 31 | 31 | 32 | 32 | 30 | 31 | 34 | 29 | 19 | 44 |
| Simple repeats | 7390 | 6552 | 6043 | 6917 | 6678 | 6351 | 7611 | 7319 | 8541 | 11360 | 9973 |
| Low complexity | 886 | 712 | 680 | 710 | 731 | 661 | 924 | 818 | 1032 | 1026 | 808 |
| **TOTAL** | **8602** | **7806** | **7237** | **8117** | **7878** | **7328** | **9439** | **8839** | **9992** | **12790** | **11130** |

Table S3: List of repetitive elements in *Metarhizium* genomes

|  |  |
| --- | --- |
|  | **Number of repetitive elements\*** |
| **ESALQ1638** | Mrob | ManiB | ManiA | ManiE | Mbru | Mgui | Mmaj | Macr | Malb | Mril |
| Retroelements | SINEs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Penelope | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 0 |
| LINEs | CRE/SLACS | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 2 |
| TOTAL | 36 | 107 | 123 | 117 | 92 | 32 | 189 | 155 | 37 | 30 | 33 |
| LTR elements | BEL/Pao | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ty1/Copia | 55 | 88 | 64 | 71 | 70 | 56 | 187 | 107 | 60 | 62 | 77 |
| Gypsy/DIRS1 | 123 | 103 | 139 | 126 | 138 | 103 | 161 | 146 | 172 | 94 | 92 |
| TOTAL | 181 | 193 | 207 | 200 | 212 | 162 | 350 | 255 | 233 | 157 | 169 |
| TOTAL | 217 | 300 | 330 | 317 | 304 | 194 | 539 | 410 | 270 | 187 | 202 |
| DNA Transposons | hobo-Activator | 7 | 60 | 19 | 13 | 15 | 6 | 71 | 45 | 7 | 1 | 5 |
| Tc1-IS630-Pogo | 24 | 42 | 56 | 50 | 44 | 30 | 92 | 66 | 24 | 98 | 27 |
| En-Spm | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MuDR-IS905 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PiggyBac | 3 | 10 | 3 | 1 | 1 | 4 | 14 | 20 | 36 | 2 | 30 |
| Tourist/Harbinger | 6 | 4 | 5 | 6 | 6 | 4 | 4 | 1 | 5 | 2 | 2 |
| Other (Mirage, P-element, Transib) | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| TOTAL | 62 | 179 | 132 | 119 | 113 | 66 | 293 | 228 | 107 | 181 | 91 |
| Rolling-circles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unclassified | 4 | 19 | 8 | 10 | 9 | 6 | 32 | 16 | 8 | 3 | 5 |
| Small RNA | 10 | 13 | 13 | 12 | 11 | 20 | 9 | 14 | 5 | 14 | 7 |
| Satellites | 33 | 31 | 31 | 32 | 32 | 30 | 31 | 34 | 29 | 19 | 44 |
| Simple repeats | 7390 | 6552 | 6043 | 6917 | 6678 | 6351 | 7611 | 7319 | 8541 | 11360 | 9973 |
| Low complexity | 886 | 712 | 680 | 710 | 731 | 661 | 924 | 818 | 1032 | 1026 | 808 |
| **TOTAL** | **8602** | **7806** | **7237** | **8117** | **7878** | **7328** | **9439** | **8839** | **9992** | **12790** | **11130** |

\*Mrob (*M. robertsii* ARSEF23); ManiB (*M. anisopliae* BRIP53293); ManiA (*M. anisopliae* ARSEF549); ManiE (*M. anisopliae* E6); Mbru (*M. brunneum* ARSEF3297); Mgui (*M. guizhouense* ARSEF977); Mmaj (*M. majus* ARSEF297); Macr (*M. acridum* CQMa102); Malb (*M. album* ARSEF1941) and Mril (*M. rileyi* RCEF4871).